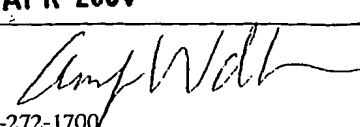


Rec'd PCT/PTO 05 MAY 2005

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/32741

A. CLASSIFICATION OF SUBJECT MATTER												
IPC(7) : C03B 37/14, 37/15												
US CL : 65/387, 393, 392												
According to International Patent Classification (IPC) or to both national classification and IPC												
B. FIELDS SEARCHED												
Minimum documentation searched (classification system followed by classification symbols) U.S. : 65/387, 393, 392												
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched												
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST												
C. DOCUMENTS CONSIDERED TO BE RELEVANT												
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	US 5,822,930 A (KLEIN) 20 OCTOBER 1998 (20.10.1998), figure 1.	39-44, 122-123, 129-130, 135-136, 154-155, 159-160, 165										
X	US 6,260,388 B1 (BORRELLI et al) 17 July 2001 (17.07.2001), claims 1-2.	39-44, 122-123, 129-130, 135-136, 154-155, 159-160, 165										
X	US 5,751,871 A (KRIVOSHLIKOV et al) 12 May 1998 (12.05.1998), figures 2 and 6.	39-44, 122-123, 129-130, 135-136, 154-155, 159-160, 165										
X	US 5,845,024 A (TSUSHIMA et al) 01 December 1998 (01.12.1998), col. 3, lines 6-26.	39-44, 122-123, 129-130, 135-136, 154-155, 159-160, 165										
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.												
* Special categories of cited documents: <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E" earlier application or patent published on or after the international filing date</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention											
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone											
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
Date of the actual completion of the international search 22 March 2004 (22.03.2004)		Date of mailing of the international search report 30 APR 2004										
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Steve Griffin  Telephone No. 571-272-1700										

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/32741

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claim Nos.: 1,2,22-24,27,35,46,80-82,117,118,124-127,141,142 and 189
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Please See Continuation Sheet
3. ☒ Claim Nos.: 3-21,25,26,28-34,36-38,45,47-79,83-116,119-121,128,131-134,137-140,143,153,156-158,161-164 and 166-188
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

PCT/US03/32741

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4,886,537 A (PATRICK) 12 December 1989 (12.12.1978), col. 6, line 14-39.	39-44, 122-123, 129-130, 135-136, 154-155, 159-160, 165

INTERNATIONAL SEARCH REPORT

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Continuation of Box I Reason 2:

Present claims 1,2,22-24,27,35,46,80-82,117,118,124-127,141, and 142 relate to an extremely large number of possible methods of manufacturing a micro structure. Support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 is to be found, however for only a very small proportion of the methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. The description lacks embodiments and comparative examples, necessary for rendering plausible the presence of technical effect. Furthermore, in view of the large number of method claims presently on file, which render it difficult to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirement of Article 6 PCT (see also Rule 6.1(a)) to such an extent that a meaningful search is impossible. Claim 189 depends from itself.